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C-A OPERATIONS PROCEDURES MANUAL

4.57 Operating BOOSTER Shield Door in Bldg. 914

Text Pages 2 through 5

Hand Processed Changes

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Approved: _____ **Signature On File** _____
Collider-Accelerator Department Chairman Date

P. Ingrassia

4.57 Operating Booster Shield Door in Bldg. 914

1. Purpose

To provide instructions to open or close Booster Shield Door in Bldg. 914.

2. Responsibilities

2.1 The door may be operated only by Operators or Collider-Accelerator Technicians (CAS) who have been trained in this procedure.

2.2 The Operations Coordinator (OC) is responsible for releasing the shield door key only to trained personnel.

3. Prerequisites

3.1 D018 key to door.

3.2 The operator of the door must be trained in this procedure.

3.3 Booster ring access security system must be in "Restricted Access" to move door.

3.4 In addition to the operator, another person must be present to act as a safety watch.

3.5 The personnel operating the shield door must bring a broom to sweep the rails and two pairs of work gloves for moving gratings.

3.6 Shield door 480 V main disconnect (914-1B-8 second floor Bldg. 914) must be closed.

3.7 The manlock gate must be closed to open the shield door.

3.8 The truck gate must be opened whenever the shield door is operated.

4. Precautions

4.1 Check for obstructions in the door travel path, including aluminum floor gratings.

4.2 Rails must be free of debris and dirt before moving door.

4.3 Watch placement of feet and hands as well as location of other personnel before/while operating door.

4.4 Red "mushroom head" push-pull buttons located at each door operating station can be used to stop the door in an emergency.

5. Procedure

5.1 To Open the Shield Door Operations.

- 5.1.1 Get shield door key and approval from MCR coordinator to move door. (DO18 key on Booster access key ring.)
- 5.1.2 Remove aluminum gratings (4 each), set them clear of aisle way and truck gates.
- 5.1.3 Thoroughly clean rails with broom.
- 5.1.4 Open truck gate (pin to floor must be unlocked with an AA-256A key and unlatched). Maintain safety watch until truck gate or shield door is closed.
- 5.1.5 Close shield door disconnect (914-1B-8-1) located on the west wall of Bldg. 914.
- 5.1.6 Check that Red "Mushroom Head" Emergency stop buttons are pulled out.
- 5.1.7 Announce over the Booster Public Address system: "The Booster Shield Door is being moved. All personnel stand clear".
- 5.1.8 Using the key obtained from MCR turn the key switch, located near the booster manlock, to start the hydraulic power unit motor.
- 5.1.9 Do either A or B (not both) and then proceed to step 5.10:
 - 5.1.9.1 To open the door press the black push button located near the Booster manlock. Releasing the button will stop the door. Allow the door to reach the mechanical stop to insure floor gratings fit.
 - 5.1.9.2 To close the door push the black push button located on the truck gate. Releasing the button will stop the door. Allow the door to reach the mechanical stop to insure the door is fully closed for radiation safety.
- 5.1.10 Stop the motor by turning keyswitch.
- 5.1.11 Open the shield door disconnect (914-1B-8-1) on the west wall of Bldg. 914.
- 5.1.12 Place aluminum grating between door rails. The gratings with the black stripe go in the trench with the black stripes.

5.13 Use truck entrance as required or go to 5.15.

5.14 Close and lock truck gate or close shield door by going to step 5.2.

5.15 Return D018 key to MCR.

5.2 To close the plug door.

5.2.1 To close the plug door follow the procedure in reverse order starting at paragraph 5.1.12. Most steps will require the operator to “undo” what was done when the door was opened.

6. Documentation

None.

7. References

7.1 Background information on Door Specifications.

8. Attachments

None.

Background information on Door Specifications

Background Information

Weight:	146 tons
Dimensions:	14' x 8'9" x 10'9"
Velocity: Open:	30 in./min (3:30 min to open)
Close:	23 in./min (5:00 min to close)
Motor:	480 V, 3-phase, 1 hp
Cylinder: Bore Diam.:	5"
Stroke:	9'7"
Max Operating Pressure:	1000 psig
Relief Valve Setting:	500 psig
System Oil Capacity:	20 gal.
Design Engineer:	D. Phillips